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REMARKS

Claims 4, 6, 13-15 and 17 have been amended to more clearly define the invention.

Support for the claim amendments, is found in the Application on page 5 lines 6-17, in the existing claims, in Figure 2 and other places.

I. Objection to Drawings

The drawings are objected because the drawings contain an application having more than 300 lines of code which must be in an Appendix and submitted on a disk.

Applicants respectfully disagree. The applications of Figures 2, 5, 6 and 7 are not one, but different applications, none of which individually exceed 300 lines of code. Further, 37 CFR 1.96 defines "computer program listing" as "a **printout** that lists in appropriate sequence the instructions, routines, and other contents of a **program** for a computer". Figures 2, 5, 6 and 7 do not constitute "a printout" that "lists in appropriate sequence the instructions, routines, and other contents of a program". Rather, Figures 2, 5, 6 and 7 comprise four separate printouts that list in appropriate sequence the instructions, routines, and other contents of four programs for a computer". This interpretation is corroborated in 37 CFR 1.96(c) by the allowance of multiple computer program listings for an application. Formal drawings are enclosed herein.

II. Limitations on Priority

The limitations of dependent claims 4 and 17 are stated in the Rejection to have not been disclosed in the provisional application filed on December 2, 2002.

Applicants respectfully disagree. The "flat file" limitation of claim 4 is found in claim 4 of the provisional application. Further, the limitation of "receiving selections of electronic document templates and sources of data items" of claim 14 is fully supported in claims 6 and 14 of the provisional application. Specifically, claim

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14 recites "enabling User selection of a document template, said document template including, data fields containing placeholder items to be replaced by desired data items, and also including a repetition identifier indicating one of said data fields is to be replicated to provide a group of data fields to be replaced by a plurality of said desired data items". It is obvious to one of ordinary skill in the art that "enabling...selection of a document template" entails receiving a document template. Similarly, it is obvious to one of ordinary skill in the art that use of a "group of data fields to be replaced by a plurality of said desired data items" entails "sources of data items".

III. Rejection under 35 U.S.C. 103(a)

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Applied XML Solutions, The Authoritative Solution," Sam's 2000 – Marchal B. in view of "Building Oracle XML Applications", O'Reilly & Associates, 2000 – Muench. These claims, as amended, are considered patentable for reasons given in connection with claim 1 and for the following reasons.

Claim 1 recites a "document generation system for producing a document from information derived from an information repository" comprising "a source of code representing a document template including, data fields containing placeholder items to be replaced by desired data items, and also including a repetition identifier indicating one of said data fields is to be replicated to provide a group of data fields to be replaced by a plurality of said desired data items; a source of document generation control information supporting insertion of said desired data items derived from said information repository in said data fields; and a document processor for applying said control information in replacing template document data field placeholder items with desired data items, to produce a generated document". These features, in combination with the features of claim 1, are not shown or suggested in Marchal in combination with Muench.

Marchal with Muench fails to show or suggest "a source of code representing a document template including, data fields containing placeholder items to be replaced by desired data items, and also including a repetition identifier indicating one of said data fields is to be replicated to provide a group of data fields to be replaced by a plurality of said desired data items". The features of claim 1 enable a user armed simply with knowledge of Microsoft Word or rich Text Format-RTF to create a customized document layout or form without being a programmer and

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capable of sophisticated XML and XSL manipulation and programming. Specifically, the "document generation system 100 advantageously eliminates the need for a proprietary report writer system...since users trained in a standard word processing package such as Microsoft Word automatically have the knowledge necessary to work with the preferred report templates 200" (Application page 5 lines 5-10). This is achieved since document templates in word or RTF may be advantageously used ("Report templates 200 are created and edited in Microsoft Word. When completed, a report template 200 is saved in a rich text format (RTF) file, as shown in FIG. 2", Application page 5 lines 13-14). Further, the "RTF file is provided as input to a program that converts the RTF, shown in FIG. 2, into an Extensible Stylesheet Language (XSL) file, as shown in FIG. 5" (Application page 5 lines 14-16).

It is the claimed 1 arrangement that advantageously enables use of word processing application or RTF compatible document templates understandable by non-programmers in creation of a customized form by a non-programmer user. The claim 1 arrangement is not shown or suggested in the references combined. On the contrary the two references (Marchal and Muench) are purely programmer reference guides which inherently teach the use of complex programming language. It is precisely the need of prior art form creation systems, for the programming skills taught by the Marchal and Muench references, that the claimed arrangement seeks to avoid. The combined references nowhere recognize the advantages of the claimed arrangement or the problem it addresses or provide any other reason or motivation for providing the claimed arrangement. Rather, the cited references teach the use of complex programming and skills in form creation that are in direct conflict with the purpose and function of the claimed arrangement.

Marchal with Muench fails to show or suggest "a source of code representing a document template including, data fields containing placeholder items to be replaced by desired data items, and also including a repetition identifier indicating one of said data fields is to be replicated to provide a group of data fields to be replaced by a plurality of said desired data items". Marchal with Muench also fails to show or suggest this feature in combination with "document generation control information supporting insertion of said desired data items derived from said information repository in said data fields" and a "document processor for applying said control information in replacing template document data field placeholder items with desired data items, to produce a generated document". The Rejection recognizes on page 6 that Marchal does not show or suggest use of "a repetition identifier indicating one of said data fields is to be replicated to provide a group of data fields

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to be replaced by a plurality of said desired data items". However, the Rejection erroneously states it would be obvious to combine features of Muench with Marchal to produce the claimed arrangement.

The sections of Muench relied on include pages 375-387, 433-499 and particularly pages 470-475. Muench pages 470-475 merely show processing of an XML datagram comprising a source of nested repeating data. This nowhere shows or suggests use of "a repetition identifier" indicating "data fields" to be "replicated to provide a group of data fields to be replaced by a plurality" of "desired data items" in. "code representing a document template including, data fields containing placeholder items to be replaced by desired data items". The sections relied on nowhere show use of a "repetition identifier" driving replication of "data fields" to be replaced by a plurality" of "desired data items" in. "code representing a document template including, data fields containing placeholder items to be replaced by desired data items". The Muench XML datagram is a source of repeating data and does NOT suggest use of a "repetition identifier" initiating **creation** of repeating data as claimed ("one of said data fields is to be replicated to provide a group of data fields"). Similarly, pages 375-387 of Muench discuss using an XSL stylesheet for grouping and sorting of **already created** repeating data and do NOT suggest use of a "repetition identifier" initiating **creation** of repeating data. Further, Muench pages 433-499 discuss processing and storing XML datagrams. Muench (with Marchal) nowhere shows or suggests use of "a repetition identifier" indicating "data fields" to be "replicated to provide a group of data fields to be replaced by a plurality" of "desired data items" in. "code representing a document template including, data fields containing placeholder items to be replaced by desired data items".

The combination of the Muench XML datagram source of nested repeating data with the Marchal XML programming capabilities as suggested in the Rejection results in a system requiring an experienced programmer capable of writing XML customized code using a specific XML datagram of nested repeating data to provide a specific customized document. This does not provide (or suggest) a "document generation system" enabling a non-programmer user to adaptively produce a document" by using a "repetition identifier" to generate a "replicated" group of "data fields to be replaced" in a "document template" by "desired data items". Consequently withdrawal of the Rejection of claim 1 under 35 USC 103(a) is respectfully requested.

Dependent claim 2 is considered to be patentable based on its dependence on claim 1. Claim 2 is also considered to be patentable because Marchal with Muench does not show (or suggest) "a document processor for applying" "control information in replacing template document data field placeholder items" of "replicated" "data fields" with desired data items, to produce a generated document" in which the "control information contains at least one of, (a) an identification of data fields in said template document available to be replaced by desired data items, (b) an identification of a location in said information repository of a desired data item associated with an individual data field, and (c) an identification of a location in said information repository of a first data item for insertion in said individual data field of said group of data fields and data items sequentially linked to said first data item are inserted in remaining data fields of said group of data fields". Contrary to the Rejection statements on page 7, neither Muench nor Marchal alone or together show or suggest such features. Marchal in Figures 7.7 and 7.8 just shows editors for editing source code and pages 208 to 214 discuss writing e-commerce server code. These sections have no specific relevance to the claimed arrangment. Marchal on page 76 mentions an XML Data Type Definition (DTD) for use in validating input data meets repeated data elements requirements, such DTD based validation does NOT suggest use of a "repetition identifier" for initiating creation of repeating data.

Dependent claim 3 is considered to be patentable based on its dependence on claims 1 and 2. Claim 3 is also considered to be patentable because Marchal with Muench does not show (or suggest) a system involving a "location identifier" of a "first data item" "for insertion in said individual data field of said group of data fields and data items sequentially linked to said first data item are inserted in remaining data fields of said group of data fields" in which the "first data item comprises an Extensible Markup Language compatible XPath value". The mere mentioning of XPath capability found in Muench nowhere shows or suggests such a combination of features and this specific use of an XPath function.

Amended dependent claim 4 is considered to be patentable based on its dependence on claim 1. Claim 4 is also considered to be patentable because Marchal with Muench does not show (or suggest) a system including "a data source file associating data field names of said document template with a data location in an information repository, said data source file comprising at least one of, (a) a comma delimited file and (b) a flat file". Marchal, in pages 165-194, contrary to the rejection statement, nowhere shows or suggests such features.

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Dependent claim 5 is considered to be patentable based on its dependence on claim 1. Claim 5 is also considered to be patentable because Marchal with Muench does not show (or suggest) a system involving a "repetition identifier" that "comprises a Rich Text Format (RTF) compatible Bookmark". Marchal, in pages 129-166, contrary to the rejection statement, nowhere shows or suggests conversion of an XML bookmark to RTF.

Amended dependent claim 6 is considered to be patentable based on its dependence on claim 1. Claim 6 is also considered to be patentable because Marchal (in pages 129-166) with Muench does not show (or suggest) a system in which "said code representing said document template is at least one of, (a) word processing application compatible and (b) Rich Text Format (RTF) compatible". As previously explained, the claimed arrangement advantageously enables use of word processing application or RTF compatible document templates understandable by non-programmers in creation of a customized form by a non-programmer user. This capability is not shown or suggested in the references combined. On the contrary the two references (Marchal and Muench) are purely programmer reference guides which inherently teach the use of complex programming language. It is precisely the need of prior art form creation systems for the programming skills taught by the Marchal and Muench references that the claimed arrangement seeks to avoid. The combined references nowhere recognize the advantages of the claimed arrangement or the problem it addresses or provide any other reason or motivation for providing the claimed arrangement. Rather, the cited references teach the use of complex programming and skills in form creation that are in direct conflict with the purpose and function of the claimed arrangement. Use of an XML document template as suggested by the Rejection on page 9 defeats an advantage of the invention and renders form creation a complex, form specific activity for a skilled programmer in which a programmer creates form specific code for each individual form. Subsequent conversion of a created XML form to RTF merely adds complexity to an already complex process. This does not in any way address the problem addressed by the claimed arrangement of enabling use of a word processing application or RTF compatible document template understandable by non-programmers in creation of a customized form by a non-programmer.

Dependent claim 7 is considered to be patentable based on its dependence on claim 1. Claim 7 is also considered to be patentable because Marchal with Muench does not show (or suggest) a system in which "said document processor processes template document data, excluding said desired data items inserted in said

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placeholder items, by incorporating said template document data in said generated document and said generated document is compatible with Extensible Stylesheet Language (XSL)". Marchal, in pages 329-333 and pages 122-123, contrary to the rejection statement, nowhere shows or suggests such features.

Dependent claim 8 is considered to be patentable based on its dependence on claim 1.

Dependent claim 9 is considered to be patentable based on its dependence on claim 1.

Dependent claim 10 is considered to be patentable based on its dependence on claim 1. Claim 10 is also considered to be patentable because Marchal with Muench does not show (or suggest) a system in which "said document processor processes template document data in Rich Text Format (RTF) together with desired data items derived from said information repository in Extensible Markup Language (XML) to provide said generated document in an Extensible Stylesheet Language (XSL) format". Marchal (with Muench), in pages 129-166 or elsewhere, contrary to the rejection statement, nowhere shows or suggests such features. As previously explained, the claimed arrangement advantageously enables use of word processing application or RTF compatible document templates understandable by non-programmers in creation of a customized form by a non-programmer user. This capability is not shown or suggested in the references combined. On the contrary the two references (Marchal and Muench) are purely programmer reference guides which inherently teach the use of complex programming language. It is precisely the need of prior art form creation systems for the programming skills taught by the Marchal and Muench references that the claimed arrangement seeks to avoid. The combined references nowhere recognize the advantages of the claimed arrangement or the problem it addresses or provide any other reason or motivation for providing the claimed arrangement.

Dependent claim 11 is considered to be patentable based on its dependence on claims 1 and 10. Claim 11 is also considered to be patentable because Marchal with Muench does not show (or suggest) a system in which "said document processor includes an XML parser to process said generated document in Extensible Stylesheet Language (XSL) format to provide a processed document in Rich Text Format (RTF)". Marchal (with Muench), in pages 129-166 or elsewhere, contrary to the rejection statement, nowhere shows or suggests the combination of features of

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claim 11 involving an "XML parser to process said generated document in Extensible Stylesheet Language (XSL) format to provide a processed document in Rich Text Format (RTF)". The combination of the references suggested does not produce a document in RTF format.

Dependent claim 12 is considered to be patentable based on its dependence on claim 1. Claim 12 is also considered to be patentable because Marchal with Muench does not show (or suggest) a system in which a "document processor examines said document template to identify an individual data field containing a placeholder item and incorporate a link in said individual data field identifying a corresponding item in said document generation control information, said corresponding item enabling locating one of said desired data items in said information repository for insertion in said individual data field". Marchal (with Muench), in pages 71-102 or elsewhere, contrary to the rejection statement, nowhere shows or suggests the combination of features of claim 12.

Amended independent claim 13 is considered to be patentable for reasons given in connection with claims 1 and 6. Claim 13 recites a "graphical User interface system supporting adaptive generation of a document" comprising "an image generator for generating at least one image window including: an image element enabling User selection of a text processing application compatible document template, said document template including, data fields containing placeholder items to be replaced by desired data items, and also including a repetition identifier indicating one of said data fields is to be replicated to provide a group of data fields to be replaced by a plurality of said desired data items; and an image element for initiating examination of said document template to identify an individual data field and insert a desired data item derived from an information repository in said data field, to produce a generated document". These features are not shown in Marchal with Muench.

Marchal with Muench does not show (or suggest) the feature combination of claim 13 including "an image element enabling User selection of a **text processing application**" (e.g., Word or RTF) "compatible document template". Marchal with Muench does not show (or suggest) use of a "text processing application compatible document template...including, data fields containing placeholder items to be replaced by desired data items, and also including a **repetition identifier** indicating one of said **data fields** is to be **replicated** to provide a group of data fields to be replaced by a plurality of said desired data items". The

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Muench XML datagram is a source of repeating data and does NOT suggest use of a "repetition identifier" initiating **creation** of repeating data. Similarly, pages 375-387 of Muench discuss using an XSL stylesheet for grouping and sorting of already created repeating data and do NOT suggest use of a "repetition identifier" initiating **creation** of repeating data. Further, Muench pages 433-499 discuss processing and storing XML datagrams. Muench (with Marchal) nowhere shows or suggests use of "**a repetition identifier** indicating one of said **data fields** is to be **replicated** to provide a group of data fields to be replaced by a plurality of said desired data items".

Marchal with Muench does not show (or suggest) a system including "an image element enabling User selection of a **text processing application**" (e.g., Word or RTF) "compatible document template". As previously explained, the claimed arrangement advantageously enables use of word processing application or RTF compatible document templates understandable by non-programmers in creation of a customized form by a non-programmer user. This capability is not shown or suggested in the references combined. On the contrary the two references (Marchal and Muench) are purely programmer reference guides which inherently teach the use of complex programming language. It is precisely the need of prior art form creation systems for the programming skills taught by the Marchal and Muench references that the claimed arrangement seeks to avoid. The combined references nowhere recognize the advantages of the claimed arrangement or the problem it addresses or provide any other reason or motivation for providing the claimed arrangement. Rather, the cited references teach the use of complex programming skills in form creation that are in direct conflict with the purpose and function of the claimed arrangement. Use of an XML document template as suggested by the Rejection defeats an advantage of the invention and renders form creation a complex, form specific activity for a skilled programmer. Subsequent conversion of a created XML form to RTF merely adds complexity to an already complex process. This does not in any way address the problem addressed by the claimed arrangement of enabling use of a word processing application or RTF compatible document template understandable by non-programmers in creation of a customized form by a non-programmer.

Amended independent claim 14 is considered to be patentable for reasons given in connection with claims 1, 6 and 13.

Amended independent claim 15 is considered to be patentable for reasons given in connection with claims 1, 6 and 13.

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Dependent claim 16 is considered to be patentable based on its dependence on claim 15. Claim 16 is also considered to be patentable because Marchal with Muench does not show (or suggest) a system in which the "step of merging is performed by at least one of, (a) XSL compatible code and (b) a mail merge application program". Marchal (with Muench) nowhere shows or suggests the combination of features of claim 16.

Dependent claim 17 is considered to be patentable based on its dependence on claim 15. Claim 17 is also considered to be patentable because Marchal with Muench does not show (or suggest) a system involving "receiving a selection of text processing application compatible electronic document templates; and receiving a selection of a source of the data items". As previously explained Marchal with Muench nowhere contemplates or suggests use of "text processing application compatible electronic document templates" or recognizes the problem of facilitating form creation by a non-programmer that this feature addresses. Consequently withdrawal of the Rejection of claims 1-17 is respectfully requested.

In view of the above amendments and remarks, Applicants submit that the Application is in condition for allowance, and favorable reconsideration is requested.

Respectfully submitted,

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